

Surds - Section Test

1. The value of $\sqrt{50}$ is the same as:

- (a) $10\sqrt{5}$
- (b) $2\sqrt{5}$
- (c) $5\sqrt{10}$
- (d) $5\sqrt{2}$
- (e) I don't know.

2. The value of $\sqrt{6} \times \sqrt{54}$ is the same as:

- (a) $9\sqrt{6}$
- (b) $3\sqrt{6}$
- (c) 9
- (d) 18
- (e) I don't know.

3. The **simplest** form of $\sqrt{72}$ is:

- (a) $9\sqrt{8}$
- (b) $6\sqrt{2}$
- (c) $2\sqrt{18}$
- (d) It cannot be written any more simply.
- (e) I don't know.

4. The value of $\frac{1}{\sqrt{2}}$ is the same as:

- (a) $-2^{\frac{1}{2}}$
- (b) $\frac{1}{2}\sqrt{2}$
- (c) $-2^{-\frac{1}{2}}$
- (d) None of these.
- (e) I don't know.

5. Simplify $\sqrt{18} - \sqrt{8}$:

- (a) $\sqrt{2}$
- (b) $\frac{3}{2}$
- (c) $\sqrt{10}$
- (d) $2\sqrt{2}$
- (e) I don't know.

6. The **correct** value of $(\sqrt{11}-2)(\sqrt{11}+2)$ is:

- (a) 7
- (b) $7-4\sqrt{11}$
- (c) 9
- (d) 15
- (e) I don't know.

7. The **correct** value of $\frac{\sqrt{3}}{\sqrt{6}}$ is:

- (a) $\sqrt{2}$
- (b) $\frac{1}{2}$
- (c) $\frac{1}{\sqrt{2}}$
- (d) $2\sqrt{2}$
- (e) I don't know.

8. Simplify $2(\sqrt{3}-\sqrt{2})+3(2\sqrt{2}-\sqrt{3})$.

- (a) $8\sqrt{3}-5\sqrt{2}$
- (b) None of these.
- (c) $5(\sqrt{2}-\sqrt{3})$
- (d) $4\sqrt{2}-\sqrt{3}$
- (e) I don't know.

9. Simplify $(2\sqrt{2}+5)^2$.

- (a) $33+20\sqrt{2}$
- (b) 33
- (c) 29
- (d) $29+4\sqrt{2}$
- (e) I don't know.

10. Simplify $(\sqrt{5}+2\sqrt{7})^2+(\sqrt{5}-2\sqrt{7})^2$.

- (a) $8\sqrt{35}$
- (b) $66+8\sqrt{35}$
- (c) 10
- (d) 66
- (e) I don't know.